

Van Waters & Rogers Inc.

subsidiary of **Univar**

OK 7398
3.2.92
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BOX 5287
DENVER, CO 80217
PHONE (303) 388-5651
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March 2, 1992

Ron Lillich, Acting Chief
Waste Management Branch
RCRA Compliance Section
U.S. Environmental Protection Agency
Region 10, HW 104
1200 Sixth Avenue
Seattle, Washington 98101

FILE COPY

Re: Notice of Violations & Warning - December 23, 1991
Van Waters & Rogers Inc.
3950 NW Yeon Avenue
Portland, Oregon
EPA ID # ORD 009227398

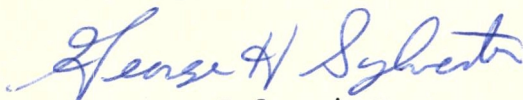
Dear Mr. Lillich:

Attached please find a copy of the revised closure plan for the former RCRA Hazardous Waste Container Storage Facility located at the Van Waters & Rogers Inc. (VW&R) Portland, Oregon facility. This plan was developed and is submitted in response to Item 2 of the December 23, 1991 Notice of Violation and Warning issued against the VW&R facility requiring a current closure plan.

The plan describes the current processes in effect at the former RCRA Hazardous Waste Storage Facility and the resources required to achieve closure of this facility. Certification of a Financial Guarantee Solid Wastes Bond for the estimated closure costs will be forwarded to your office upon approval of this plan.

Please contact Mohamed Rizk, Regional Regulatory Manager, at (213) 265-8123 or my self at the above address should you have any questions regarding this plan.

Sincerely,



George H. Sylvester
Senior Project Manager
Environmental Affairs

cc: John Boik - ODEQ
Ken Weems - VW&R Portland
Mohamed Rizk - VW&R Los Angeles

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RCRA COMPLIANCE SECTION

USEPA RCRA



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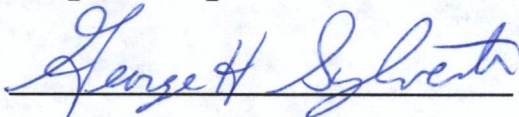
CLOSURE PLAN

Former RCRA Hazardous Waste Container Storage Facility

**VAN WATERS AND ROGERS INC.
3950 NW Yeon Avenue
Portland, Oregon
ORD 009227398**

February 27, 1992

Prepared by:

A handwritten signature in blue ink, reading "George H. Sylvester", is written over a horizontal line.

**George H. Sylvester
Senior Project Manager
Environmental Affairs**

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RCRA COMPLIANCE SECTION

TABLE OF CONTENTS

INTRODUCTION

1.1	Regulatory Requirements.....	Pg. 2
1.2	General Facility Information.....	Pg. 3
1.3	RCRA Hazardous Container Storage Facility.....	Pg. 5
1.4	Facility Contacts.....	Pg. 5

CLOSURE PLAN

2.1	Maximum Waste Inventory.....	Pg. 6
2.2	Closure Schedule.....	Pg. 6
2.3	Closure Activities.....	Pg. 6
2.4	Certification of Closure.....	Pg. 12
2.5	Closure Cost Estimate.....	Pg. 12
2.6	Financial Assurance.....	Pg. 12

LIST OF TABLES

TABLE 1:	Post Closure Temporary Storage History
TABLE 2:	Anticipated Closure Schedule
TABLE 3:	Closure Cost Estimate

LIST OF FIGURES

FIGURE 1:	Van Water & Rogers Inc. Facility Map
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1.0 INTRODUCTION

1.1 Regulatory Requirements

The Van Waters & Rogers Inc. Portland, Oregon Facility (VW&R) is a distributor of industrial chemicals. In connection with the operation of its distribution business, VW&R is a generator of hazardous waste. In addition, in the interest of chemical product stewardship and to fully serve its customers who purchase the industrial chemicals, VW&R offers hazardous waste handling services through its ChemCare Department.

Currently VW&R functions in two capacities, both of which have separate regulatory status and are subject to different regulatory requirements:

- * Generator of Wastes on site, which wastes are stored on site for 90 days or less (subject to 40 CFR Part 265).
- * Transporter of wastes generated by third parties off site (subject to 40 CFR Part 263). As a transporter, VW&R operates a transfer facility which receives and hold wastes generated by third parties off site for less than 10 days (40 CFR 263.12 activity).

Formerly VW&R operated a hazardous waste storage facility for wastes generated by third parties off site. The use of the facility was discontinued in 1986 and underwent formal closure procedures in 1987. A Certification of Closure was submitted to EPA in March, 1988 but was not approved due to underlying soil contamination as reported to EPA in December 1987. EPA notified VW&R on December 23, 1991 that the approved Closure Plan, dated December 31, 1986, no longer accurately describes the processes at the facility and that VW&R review the current plan and revise it where necessary.

An amended closure plan and estimate of closure is herein submitted to replace the original Closure Plan dated December 31, 1986, for the RCRA Hazardous Waste Storage facility operated by Van Waters & Rogers Inc. (VW&R) at 3950 NW Yeon Avenue, Portland, Oregon. This amendment is submitted in accordance with 40 CFR 265.112 (c)(1)(iii). The original Closure Plan stipulated that soil remediation would be conducted if sub-slab contamination was identified. Subsequent to submittal of the original Closure Plan a 3008(h) Administrative Order on Consent was issued to VW&R requiring a RCRA Facility Investigation and Corrective Measure Study encompassing the entire plant site. The need for and methods of soil remediation at the facility, including the area under the former RCRA Hazardous Waste Container Storage Facility, will be addressed by the Corrective Measure Study required by the 3008(h) Administrative Order.

This amended closure plan and closure cost estimate have been prepared pursuant to the requirements of 40 CFR 265 Subparts G &

H, 265.111 through 265.115, 265.142, 265.143, and Oregon Administrative Rules (OAR) Divisions 104, 105, and 106. It outlines the steps for partial closure of the Van Waters and Rogers Inc. (VW&R) Portland, Oregon plant site located at 3950 NW Yeon Avenue. This plan specifically addresses the closure of the 3500 square foot former Hazardous Waste Container Storage Facility. As defined in 40 CFR 260.10, the term "facility" means all contiguous land, structures and other appurtenances on the land used for treating, storing or disposing of hazardous waste" except as exempted under the provisions of 40 CFR 265.1(c)(6) involving recycling facilities. As such, this plan addresses the closure of the area of the plant site formerly used for hazardous waste storage activities (the facility), which is defined in the Part A RCRA permit application which VW&R submitted to the DEQ on September 26, 1980, and later modified, with submittal, on July 13, 1981.

Management of the container storage facility is regulated under the Resource Conservation and Recovery Act (RCRA). A post closure plan is not required because the facility is not nor has it been a hazardous waste disposal site. The last volume of outside generated waste was removed from the container storage area in January, 1986. Wastes generated as part of the closure activities will be handled according to Section 2.3.4 of this plan.

Because of the limited nature of the RCRA waste accumulation activities conducted on site, no notice in deed to the property is deemed to be required under 40 CFR Part 265.

Once closure of the former hazardous waste container storage facility has been completed, as outlined in this amended plan, and certified in accordance with 40 CFR 265.115, the site will cease being a RCRA storage facility.

1.2 General Facility Information

1.2.1 General Background

Van Waters and Rogers Inc. acquired the property in 1947 and has continuously occupied the site for approximately forty five years. The site encompasses approximately 9 acres which is capped with asphalt, concrete loading docks, and office/warehouse buildings. A railroad spur runs along the west side of the loading dock. Security is provided by a chain link fence topped with three strands of barbed wire which completely surrounds the operational yard. Access gates are locked during nonworking hours.

The site is located in a heavily industrialized area and no residential sites are located in the immediate area. Neighboring sites include an active rail yard to the north; a bottle/can recycling plant on the east; a steel casing company to the south and a steel fabrication company on the west.

Since acquiring the property VW&R has handled a complete line of

industrial chemicals. The facility is a chemical distribution center. Bulk shipments of chemicals are brought in, repackaged, and distributed to customers throughout the greater Portland area.

1.2.2 Regulatory Background

Notification of Hazardous Waste Activity. On September 18, 1980 VW&R submitted to EPA a "Notice of Hazardous Waste Activity for the plant site pursuant to RCRA 3010(a). The notification identified VW&R as owner and operator of the plant site.

Part A. Permit Application. VW&R submitted Part A of its permit application on July 13, 1981. The application identified VW&R's operation of the facility for the storage, treatment and/or disposal of hazardous wastes.

Hazardous Waste Treatment-Collection Site License. VW&R was issued a Hazardous Waste Treatment-Collection Site License on June 4, 1981 by the DEQ for: 1) Treatment: perchloroethylene, methylene chloride; and 1,1,1 trichloroethane; and 2) Collection Site: toxic hazardous waste; corrosive hazardous waste; and ignitable hazardous waste.

3008(a) Administrative Order on Consent. An Administrative Order on Consent pursuant to RCRA Section 3008(a) was issued on July 11, 1986. The order required VW&R to develop a closure plan and formally close the RCRA Hazardous Waste Container Storage Facility. The final order was signed on May 7, 1987 and required VW&R to modify the closure plan dated December 31, 1986 to address EPA's and DEQ's comments, if any, developed as a result of the public comment period held by EPA and DEQ. Only one comment was received during that comment period and the plan, as submitted, was approved by the EPA. Closure activities were implemented and a Certification of Closure was submitted on March 3, 1988 for approval. EPA has not accepted certification due to the presence of elevated levels of hazardous constituents in the soil beneath the storage facility.

3013 Administrative Order on Consent. On July 11, 1986 a second Administrative Order on Consent was also issued. This order, pursuant to RCRA Section 3013, required VW&R to develop and implement a proposal to 1) identify the nature and extent of possible soil and groundwater contamination at the VW&R plant site and 2) define site geology, hydraulic characteristics of the uppermost aquifer and other zones to be monitored, ground water movement, and continuity of hydrogeologic units. The Monitoring, Analysis, and Testing (MAT) Plan, developed to comply with the Order describes a phased investigation, wherein data collected, analyzed, and interpreted in one phase was used to guide the efforts in subsequent phases. The results of the 3013 MAT Investigation were presented in the final Phase I and II Reports submitted to the EPA in September and December, 1987. VW&R received from EPA formal acknowledgement of satisfying the terms and requirements of the order on June 15, 1988.

3008(h) Administrative Order on Consent. Based on the results of

the Phase I MAT Investigation the EPA notified VW&R of its intent to issue an administrative Order on Consent pursuant to RCRA Section 3008(h) on October 29, 1987. Under this order VW&R is to perform a RCRA Facility Investigation (RFI) and Corrective Measure Study (CMS) of the entire plant site. Upon completion of the CMS, VW&R has agreed to take corrective action, if necessary, at the plant site. The Final Order was signed on June 15, 1988 and is still in effect.

1.3 RCRA Hazardous Waste Container Storage Facility

This amended Closure Plan provides for the closure of the RCRA Hazardous Waste Container Storage Facility which is located in the west side of the operational yard area of the VW&R site (see Figure 1). Use of the container storage facility for outside generated waste was discontinued in January, 1986. The facility underwent formal closure procedures as outlined in section 1.2 in 1987/88. Since receiving verbal notification from EPA in August, 1988 that the Certification of Closure would not be approved, the former hazardous waste storage facility has only been used as a parking area for empty VW&R trucks and as a temporary staging area for wastes generated as part of the RFI. To the best of our knowledge, no prior or current release of hazardous wastes or constituents have occurred or are presently occurring from the former RCRA Hazardous Waste Container Storage Facility.

1.4 Facility Contacts

This subsection provides a list of the facility contacts to be used during the closure period. The primary contacts are:

George H. Sylvester
Senior Project Manager
Environmental Affairs
Univar Corporation
4300 Holly St.
Denver, CO 80216
(303) 388-5651

Wayne Grotheer
Director, Environmental Projects
Univar Corporation
6100 Carillon Point
Kirkland, WA 98033
(206) 889-3470

Nick Gardner
Regional Regulatory Manager
Van Waters & Rogers Inc.
1363 S. Bonnie Beach Place
Los Angeles, CA 90023
(213) 265-8123

Kirk Steinseifer

Area Operations Manager
Van Waters & Rogers Inc.
3950 NW Yeon Avenue
Portland, OR 97210-1412
(503) 222-1721

2.0 CLOSURE PLAN

VW&R will maintain a copy of the approved revised closure plan at the facility until all closure activities pertaining to the RCRA Hazardous Waste Container Storage Facility have been completed and certification received from an independent, registered professional engineer that the RCRA unit described in this plan has been closed in accordance with the specifications of the approved plan.

2.1 Maximum Waste Inventory

The maximum design capacity of the former RCRA Hazardous Waste Container Storage area of 1,000 fifty-five gallon drums will be used for the maximum waste inventory. Normal no more than thirty-five drums of project waste were temporarily held while awaiting profiling for disposal at a RCRA permitted facility. Table 1 lists the self-generated wastes that were temporarily held at the facility.

2.2 Closure Schedule

This subsection addresses the requirements of 40 CFR 265.112 pertaining to the schedule for closure of the RCRA unit described herein and the estimated year in which the RCRA facility will attain closure.

Closure activities are anticipated to commence within 30 days of notification to VW&R of formal approval of the Closure Plan by the EPA. VW&R anticipates the closure of the RCRA container storage facility to be completed in 1992. A schedule of the closure activities is provided in Table 2. Closure activities will be completed within 180 days of formal EPA notification of plan acceptance as required by 40 CFR 265.113(b).

2.3 Closure Activities

The following is a detailed description of the steps involved in the clean closure of the hazardous waste container storage facility. Decontamination activities and subsequent verification sampling will be conducted over the entire 50 feet x 70 feet area. All closure activities will be completed in a safe and professional manner by qualified personnel and will follow proper health and safety protocols at all times.

Inspections by an independent State of Oregon professional

engineer (PE) will be conducted on behalf of VW&R. The PE will observe the placement of sealant in cracks where necessary, decontamination operations, sampling protocols, and if necessary concrete removal. All results of inspections made by the PE will be incorporated into the operating record.

2.3.2 Decontamination of the RCRA Container Storage Facility

The VW&R Portland facility is operated in a manner that minimizes contamination of waste handling equipment, structures, and the surrounding areas. Regular inspections by trained personnel and preventive maintenance are routine components of the facility's normal operations. Should any spillage or leakage occur, it is immediately contained with absorbent, collected, and properly disposed of. For these reasons, it is not expected that the waste handling equipment and storage area will be contaminated. However, the following specific decontamination procedures will be followed as a precautionary measure at closure.

Decontamination of the Waste Container Storage Area will be carried out by an outside contractor with supervision provided by the VW&R Environmental Project Manager. Decontamination personnel will wear safety apparel meeting OSHA standards and will follow proper health and safety protocols at all times. The aforementioned personnel will have satisfied the hazardous waste site training requirements specified by the OSHA Hazardous Waste Operations Standard 29 CFR 1910.120.

Initially, the entire area will be mechanically cleaned by sweeping, vacuuming, and/or scraping. The accumulated debris will be gathered and placed in DOT approved containers to await analyses and subsequent disposal in an approved manner. The concrete surface and associated berm will then be visually inspected for cracks and other openings through which the wash/rinse fluids may reach the underlying soil. All identified cracks or openings within the bermed area will be sealed with a sealant resistant to both water and any cleanser designated for use in the area. A detailed record of all observed cracks will be entered into the operating log.

The area will then be subjected to steam cleaning and/or high pressure washing. To facilitate decontamination efforts scrubbing with a stiff brush and/or use of suitable detergents may be incorporated as needed. Particular attention will be given to visually suspect areas, if any. The surface will be thoroughly washed, visually inspected for inadequately cleaned areas and further cleaned as needed. This process will be repeated until the area appears thoroughly cleaned. The wash water will be collected and placed into DOT approved containers to await analyses and subsequent disposal in an approved manner. It is anticipated that four 55-gallon drums of wash water will be generated as part of the cleaning process.

Upon completion of the wash cycle the area will be double rinsed with clean high pressure water. Between each rinsing, the concrete will be visually inspected to assure that complete rinsing has occurred.

The rinsate will be collected and placed into DOT approved containers. The rinse water will be analyzed using Test Method 8240 to determine the proper disposal method. It is anticipated that no more than eight 55-gallon drums of rinse water will be generated during the rinse cycle.

2.3.3 Verification Sampling and Analysis

Concrete. Upon completion of the washing and rinsing operations, verification samples of the storage facility will be collected and analyzed to ensure the pad is free of contamination in the following manner:

The 50 x 70 pad will be divided into 100 quadrants, measuring approximately 5' x 7', and each will be assigned a unique number for future reference. The quadrants will be inspected for evidence of potential contamination and/or migration pathways. The inspection will be overseen by an independent registered Professional Engineer.

Five of the number quadrants will be randomly selected for sampling. The specific quadrants selected for sampling will be determined from numbers generated from a random number table. One sample will be collected from each selected quadrant by first chipping the concrete to an approximate depth of 1/2 inch. The chipped material will then be placed into individual sample jars for shipment to the analytical laboratory following proper QA/QC protocols. A sufficient sample will be collected to assure that all required analyses can be made.

Five background samples will be collected from concrete the same age and composition as the that associated with the Recycle Area. Background sample locations will be in areas where no handling of hazardous constituents have occurred and the sample will be collected in the same manner as described above.

The surface of the former storage facility will be deemed "cleaned" if the levels of hazardous constituents in the surface concrete samples are at or below those of the mean concentration plus two standard deviations of the same hazardous constituents in the background concrete samples.

In the event that the surface chip samples from the pad are determined to be hazardous on the basis of the analytical results and in accordance with the definition of a hazardous waste by 40 CFR 261.3 then the contamination potential of the entire pad will be assessed as follows:

Three inch diameter cores will be taken, in the same general location as the surface chip samples, for chemical analysis. In order to preserve the structural integrity of the storage pad, the depth of the cores will be limited to 2-2 1/2 inches. This depth will allow the core barrel to remain above the reinforcing welded wire fabric within the concrete. These cores will adequately evaluate possible residual contamination since any contamination would have been introduced at the surface. Each core will contain approximately 7.5 cubic inches of concrete which will

provide an adequate amount of material for all analyses.

The cored holes will be plugged to provide a finished surface. A high strength, non-shrink, nonmetallic, chloride-free grout will be used to plug the holes.

The cores will be analyzed for the same constituents as the corresponding surface samples. The concrete will be deemed "clean" if the analytical results meet the same criteria as outlined above for surface chip samples.

If the analytical results indicate that the upper portion of the concrete pad is hazardous, then the lower half the pad will be cored in the same locations as the shallow cores and analyzed in the same manner. It is not anticipated that elevated levels of dangerous constituents will be observed in the lower half of the pad.

In the event that cores of the storage pad are taken, five background cores will be collected and analyzed in the same manner to determine analytical values for comparison. As with the surface samples, background core locations will be selected in those areas where no handling of hazardous constituents have occurred and the surface material is of the same age and composition as the former RCRA Container Storage Facility.

Soil. No additional soil borings will be taken under the former RCRA Hazardous Waste Container Storage Facility. This assessment was completed as part of the 3013 M.A.T. Investigation. EPA approved this investigation in June 1988. Elevated levels of certain hazardous constituents were identified in the soil beneath the storage facility and were reported in the final M.A.T. Investigation report dated December, 1987. Remediation of the soil will be evaluated in the CMS portion of the 3008(h) investigation currently in progress.

Groundwater. No groundwater samples will be collected beneath the storage facility. Adequate groundwater data has been obtained from groundwater monitoring wells which have been installed around the storage facility as part of the 3013 M.A.T. and 3008(h) RFI investigations. Groundwater contamination has been identified and remediation plans will be evaluated in the CMS portion of the 3008(h) investigation.

2.3.4 Analytical Techniques - QA/QC Protocols

Analytical Techniques. All analytical procedures for the cement cores/chips., background, wash/rinsate decon water samples will follow EPA publication SW-846, Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods.
removal.

A laboratory equivalent in analytical capabilities to an EPA contract lab program (CLP) laboratory will be used to provide

chemical analysis on the cement and wash/rinsate samples. CLP analytical protocols will be followed. The laboratory will be required to provide the appropriate recommended sample containers and preservatives for the specific parameters and analytical techniques as included in SW-846.

QA/QC Protocols. QA/QC procedures will be employed during all sampling activities to assure that the analytical data obtained will be accurate, consistent and representative of actual site conditions. Samples will be collected and containerized following U.S. EPA protocols set forth in SW-846. All sampling containers will be labelled, at the time of sampling with durable labels placed on the sides of the sample containers. The labels will provide the following information:

- Sample identification number
- Name of collector
- Date and time of collection
- Place of collection
- Parameter(s) requested for analysis

Samples will be shipped to the analytical laboratory on the same day as collected. In the event that the laboratory cannot receive shipments on a given day, samples will be held on ice for shipment the next day. Holding time specified in SW-846 will not be exceeded.

Chain-of-custody forms will be shipped with each set of samples to establish the documentation necessary to track sample possession from time of collection to shipment to the analytical laboratory. The following information will be contained in each chain-of custody form:

- Sample identification number
- Name of collector
- Date and time of collection
- Sample type/media
- Number of containers
- Parameters requested for analysis
- Signature of person involved in the chain of possession
- Inclusive dates of possession
- Signature of person receiving sample
- Date of time of sample receipt

A custody seal will be placed on each shipping/cooling chest to ensure that samples are not disturbed or tampered with during transportation to the laboratory.

No duplicate analyses will be made on the concrete since exact sample replication will be difficult to achieve.

2.3.5 Equipment Decontamination

All equipment used during closure activities will be

decontaminated by removing all loose material and then steam cleaned and/or high pressure washed and rinsed. Equipment will be decontaminated prior to transport off-site or use else-where on-site.

All decontamination operations will be conducted in a designated bermed area covered with an impermeable plastic sheeting. All decon fluids will be collected and placed in DOT approved containers for later analysis and disposal in an approved manner.

A list of possible equipment potentially requiring decontamination include:

Fork lifts
Safety equipment
Coring equipment

Sampling equipment
Hoses, pumps, etc.
Brushes, buckets, etc.

2.3.6 Management of Waste Generated During Closure

This section addresses the requirements of 40 CFR 265-114 pertaining to any solid or liquid waste generated during closure activities. It is estimated that a maximum of twenty-five (25) fifty-five (55) gallon drums of potential hazardous wastes may be generated. All drums will be properly labeled and placed on pallets in the former RCRA storage facility. The drums will remain in this area until it can be demonstrated, in accordance with 40 CFR 261.3(c) or (d) that it is not a hazardous waste. If this demonstration cannot be made, then the wastes will be manifested to an off-site RCRA TSD facility for proper treatment and/or disposal.

Final disposition of the concrete will be determined on the basis of the analytical results and in accordance with the definition of a dangerous waste by 40 CFR 261.3. If the concrete is considered dangerous, it will be removed down to a depth where health based criteria are met. The contaminated concrete will be handled as a dangerous waste and will properly be disposed in an off-site RCRA permitted TSD facility.

In the event that the concrete is contaminated with nonhazardous constituents, final disposition of the concrete will be determined by a health based risk assessment for those nonhazardous constituents that are detected. EPA guidance documents: Interim Final RCRA Facility Investigation (RFI) Guidance (Section 8), EPA 530/SW-89-031, May 1989: and Guidance for Carcinogen Risk Assessment, EPA 51R33992, will be used for this assessment. Nonhazardous concrete, if removed, may be deposited in an approved sanitary landfill. Written approvals from the County Department of Health and the current landfill operator will be obtained prior to disposal. Concrete with constituent concentrates exceeding the risk assessment levels will be deposited in an off-site RCRA permitted TSD facility upon removal.

2.4 Certification of Closure

VW&R will submit to EPA certification by both the company and an independent registered professional engineer that the RCRA Hazardous Waste Container Storage Area has been closed in accordance with the specification of the approved closure plan.

2.5 Closure Cost Estimate

A closure cost estimate is included in Table 3.

2.6 Financial Assurance

VW&R has maintained a continual financial assurance mechanism for the closure of the RCRA Hazardous Waste Container Storage Facility of this site,. The document is attached as Appendix B and has been previously presented to DEQ in accordance with the requirements of 40 CFR 264.13 and 50 CFR 264.147:

Certification of Financial Guarantee Solid Wastes Bond for \$

TABLE 1

POST-CLOSURE TEMPORARY STORAGE HISTORY

**Former RCRA Hazardous Waste Container Storage Facility
Van Waters & Rogers Inc.
3950 NW Yein Avenue
Portland, Oregon**

RFI GENERATED WASTES

Soil contaminated with:
Chlorinated Solvents
Aromatic Solvents

Groundwater contaminated with:
Chlorinated Solvents
Aromatic Solvents

OZONE PILOT PROGRAM TREATMENT STREAMS

LNAPL Stream:
Toluene Rinse

TABLE 2 - ANTICIPATED CLOSURE SCHEDULE									
WEEKS									
ACTIVITY	0	1	2	3	4	5	6	7	8
Approval of Closure Plan	■								
Decontamination of RCRA Storage Pad		■							
Sampling/Analysis		■	■	■	■	■	■	■	
Certification of Closure								■	■

NOTE: Proposed Schedule Only.
 All closure activities will be completed within 180 days as required by 40 CFR 265.113(b).

TABLE 3

**CLOSURE COST ESTIMATE
RCRA CONTAINER STORAGE AREA**

TASK 1. DECONTAMINATION OPERATIONS

Labor	\$3,500
Equipment Rental	<u>600</u>
Sub-Total	\$4,100

TASK 2. SAMPLING/ANALYSIS

Concrete Inspection	\$250
Cement Cores (10 @ \$75/Core)	750
Analytical Costs	<u>6,000</u>
Sub-Total	\$7,200

TASK 3. WASTE DISPOSAL

Transportation & Disposal Costs (25 drums @ \$300/per drum)	<u>\$7,500</u>
Sub-Total	\$7,500

TASK 4. CLOSURE CERTIFICATION

Professional Engineer (3 days @ \$800/per day)	<u>\$2,400</u>
Sub-Total	\$2,400

TOTAL CLOSURE COSTS

\$21,200

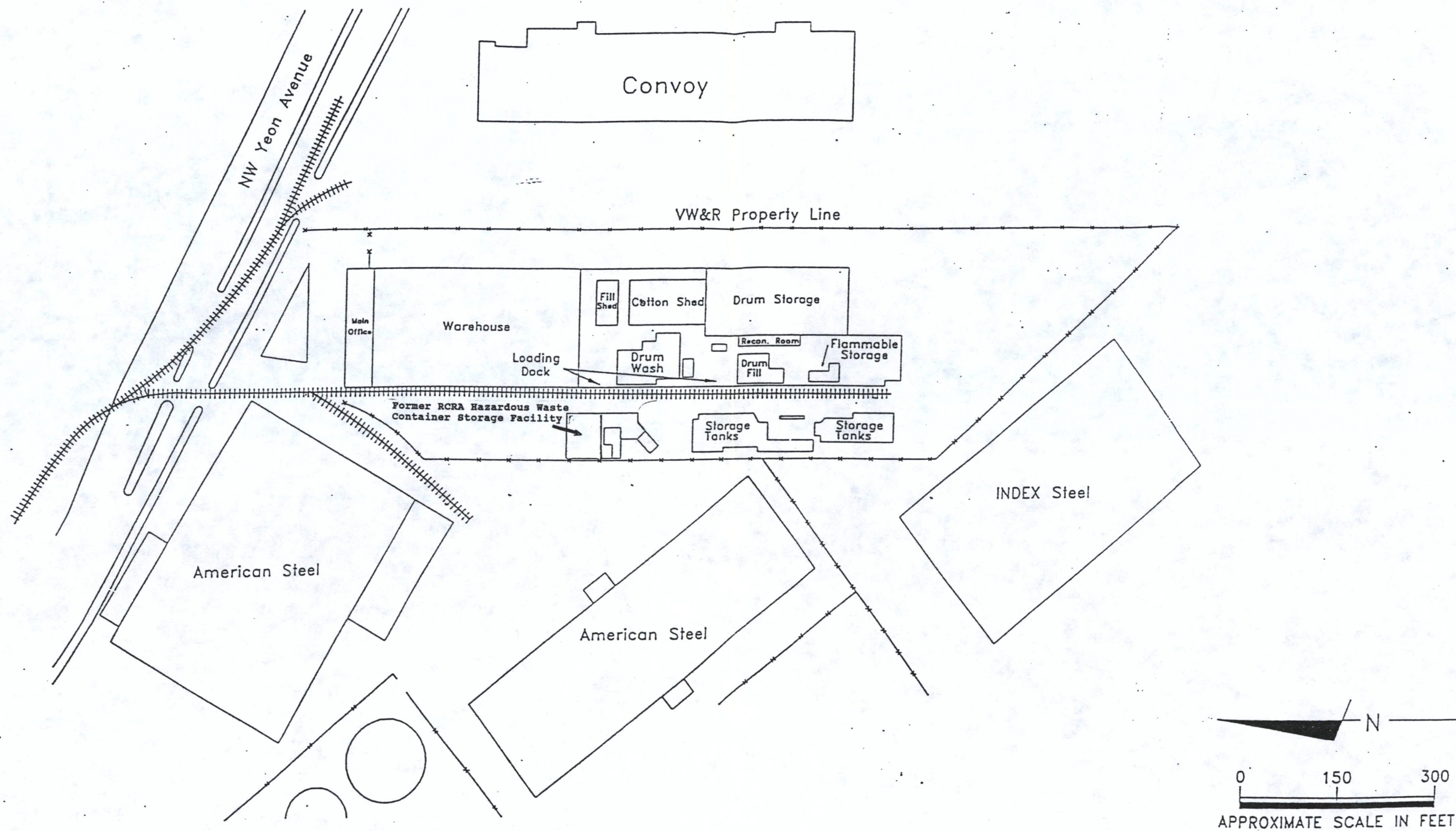


FIGURE 1.

FACILITY MAP
VAN WATERS & ROGERS INC.
3950 NW YEON AVENUE
PORTLAND, OREGON